## **Abstract**

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There is disclosed an automated system and process for providing a fully automated process for the design, manufacture and analysis of data for biological array ("biochip") devices. Specifically, there is further disclosed a process and system for obtaining customer orders for custom-designed biochips comprising obtaining desired target sequences from the customer, wherein the target sequences consist essentially of oligonucleotide sequences, polypeptide sequences, or antigens to be bound; creating a sequence content motif for an array, wherein the sequence content motif consists essentially of oligonucleotide sequences, polypeptide sequences, or binding agents designed for complimentary binding; and applying the content motif to a surface suitable for later detection.